

**ARIZONA GAME AND FISH DEPARTMENT  
HABITAT PARTNERSHIP COMMITTEE  
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:	14-105
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**PROJECT INFORMATION**

**Project Title:** Sunset Block C

**Region and Game Management Unit:** 27

**Local Habitat Partnership Committee (LHPC):**

- Safford

**Was the project presented to the LHPC?**

**YES**☒ **NO**☐

**Has this project been submitted in previous years?** **YES**☒ **NO**☐

**If Yes, was it funded?** **YES**☒ **NO**☐ → **Funded HPC Project #(s):**

**Project Type:** Prescribed Burn

**Brief Project Summary:**

The Sunset project consists of 60,062 total acres. The project area has been broken into 3 separate blocks (A, B, and C). Block A was treated with prescribed fire in the spring of 2009 (19,563 acres). Block B was treated with prescribed fire in the spring of 2010 (16,234 acres). A portion of Block C was treated with prescribed fire in 2011 (due to T&E restraints, the unit was not completed). Mechanical thinning has occurred and is ongoing in Blocks B and C.

There is a need to restore fire to the Sunset Ecosystem to reduce tree densities and create varying successional stages of browse species, which combined will stimulate herbaceous species growth leading to increased ground cover, more stable watershed conditions, and improved upland habitat and rangeland conditions. The Arizona Game and Fish Department and the Clifton Ranger District have identified the Sunset Restoration Project area as a priority for treatment to provide much needed habitat improvement (cover and forage) for mule deer, Coues whitetail deer, Merriam's turkey and Mearn's quail, javelina, black bear, and non-game species.

This habitat enhancement and wildlife management proposal is to treat 2,000 acres in Block C of the 60,062 acre Sunset Restoration project.

**Big Game Wildlife Species to Benefit:** Mule deer, whitetail deer, turkey, black bear, javelina, Mearn's quail, as well as non-game species

<b>Implementation Schedule</b> (Month/Day/Year):  <u>Project Start Date:</u> February 1 <sup>st</sup> , 2015  <u>Project End Date:</u> May 31 <sup>st</sup> , 2015	<b>Environmental Compliance:</b> NEPA Completed: Yes[X]   No[]   N/A[] Projected Completion Date: <u>10/2008</u>  State Historic Preservation Office - Archaeological Clearance: Yes[X]   No[]   N/A[] Projected Completion Date: <u>10/2008</u>  Arizona Game and Fish Department EA Checklist:      N/A[] To be Completed by: _____ Projected Completion Date: _____	
<b>PROJECT FUNDING</b>		
<b>Special Big Game License Tag Funds Requested:</b>	\$ 30,000 for 2,000 acres in Block C	
<b>Cost Share or Matching Funds:</b>	\$ 45,000 for 3,000 acres in Block C (WFHF) \$ 25,000 estimated for salaries (WFPR)	
<b>Total Project Costs:</b>	<b>\$ 100,000</b>	
<b>PARTICIPANT INFORMATION</b>		
<b>Applicant</b> (please print): Justin J. Thompson	<b>Address:</b> 397240 AZ 75 Duncan, AZ 85534	<b>E-mail:</b> justinthompson@fs.fed.us
<b>Telephone:</b> 928-687-8613		<b>Date:</b> 07/07/2014
<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel): Steve Najar (928)965-5066		
<b>Project has been coordinated with:</b> Safford HPC and Arizona Game and Fish		

#### NEED STATEMENT – PROBLEM ANALYSIS:

There is a need to restore fire to this ecosystem to reduce tree densities and create varying successional stages of browse species, which combined will stimulate herbaceous species growth leading to increased ground cover, more stable watershed conditions, and improved upland habitat and rangeland conditions. The Arizona Game and Fish Department and the Clifton Ranger District have identified the Sunset Restoration Project area as a priority for treatment to provide much needed habitat improvement (cover and forage) for mule deer, Coues whitetail deer, Merriam's turkey and Mearns' quail, javelina, black bear, and non-game species.

Existing conditions within the project area indicates widespread encroachment of woody species (primarily alligator and one-seed juniper) into semi-arid desert grasslands and increased occurrence within the Madrean evergreen woodland across the project area. Both of these processes have increased canopy closure reducing the amount of herbaceous ground vegetation. Previously, lack of fine herbaceous fuels due to historic grazing use and man's intervention to put out all fires has disrupted the natural fire return interval severely restricting the influence of fire as an ecosystem disturbance to maintain the diversity and productivity of the semi-arid desert grassland and Madrean evergreen woodland vegetative communities found within the project area.

Ecological conditions have diverged from what historically existed throughout the project area within

represented vegetative communities. The combination of legacy tree density and associated fire scarring observations, old aerial and range analysis photographs, and results of adjacent restoration work in similar soil types indicate that tree canopy density ranged from 5-10%, herbaceous production varied from 1200-2500 pounds dry weight of all herbaceous species, a mosaic of seral stages occurred within browse slopes, fire return intervals ranged from 5-10 years, and fire severities were low to moderate over most of burned acreages. Today's conditions show areas with much higher tree canopy densities, much longer fire return intervals, and lower overall herbaceous species production.

Prescribed treatments are intended to reduce tree canopies, lower tree densities, and provide a mosaic of browse successional stages and are expected to stimulate subsequent growth of herbaceous species, increase ground cover which will stabilize the watershed, increase habitat heterogeneity, improve wildlife habitat, and provide opportunities for fire to be returned on more natural intervals to maintain vegetative conditions that are sustainable over time.

**PROJECT OBJECTIVES:** Overall objectives for the project are to:

1. Create and maintain a mosaic of vegetation seral stages which resemble vegetation conditions shaped by naturally occurring free spreading fire.
2. Enhance mule deer, white-tailed deer, turkey, javelina, and big horn sheep habitat by re-establishing seral stages in woodland and shrub communities that depict natural variability from the effects of free-spreading fire, providing for forage, shelter, and breeding habitat.
3. Establish prescription parameters to ensure that any potential effects are not likely to affect TES species or their designated critical habitat.
4. No more than 10 percent of any riparian or TES buffer will receive low to moderate intensity fire.
5. Allow for fire (fire restoration) to resume its natural role as a disturbance in this fire adapted ecosystem.
6. Ensure adequate and effective ecological recovery of areas treated with prescribed fire and wildland fire managed for resource benefits.
7. Protect natural and cultural values at risk of destruction from wildfire.

**PROJECT DESCRIPTION AND STRATEGIES:** Overall project strategies are:

1. Mechanically thin identified areas within Blocks B and C \*complete and ongoing\*
2. Construct fireline along boundaries and around avoidance areas and improvements in Block C
3. Utilize prescribed fire in Block C to obtain project objectives

**PROJECT LOCATION:**

The Sunset Restoration Project is approximately 60,062 acres in size, ranges in elevation from 3,600 to 7,047 feet, and is located in the very southern part of the Clifton Ranger District (Map 1). The project area is divided into three blocks (A, B, and C) that range in size from 16,234 to 24,265 acres. Legal description of areas partially or totally within the project boundary are: T03S, R30E, sections, 11-15, 21-28, and 33-36; T03, R31E, sections, 3-11 and 14-36; T03, R32E, sections, 30-32; T04, R30E, sections, 1-4, 9-16, and 21-24; T04S, R31E, sections, 1-25 and 36; and T04, R32E, sections, 5-8, 17-19, and 30 (See Map 1).

### LAND OWNERSHIP AT THE PROJECT SITE(S):

(if the project area is private property, please state specifically and provide the landowner's name)

- Project treatment area lies entirely within the Clifton Ranger District, USFS, Apache Sitgreaves N.F.

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?*

YES[] NO[] N/A[X]

### HABITAT DESCRIPTION:

There are four vegetation associations within the project area by acres for each vegetation association (see table). Past management has contributed to a change in forest structure and species composition in the proposed project area from juniper savannas with a historically open, scattered structure, to a dense, more closed canopy woodland reducing grasslands. Dense woodlands such as found on the mesa tops (former savannas) within the project area are more susceptible to larger scale stand replacement fires not characteristic of the historic fire regime of this area.

Acres of Vegetation Associations by Vegetative Class, Treatment Block for Sunset Restoration Project.				
Vegetative Class	Block A	Block B	Block C	Total Acres
Madrean Evergreen Inclusions of Pinyon and Shrub Dominated	14,063	10,010	12,784	36,856
Madrean Pine Oak Woodland	680	2,473	7,051	10,204
Semi-Arid Desert Grassland	4,380	3,752	4,294	12,426
Mixed Broadleaf Deciduous Riparian	440	0	137	576
Total	19,563	16,234	24,265	60,062

Out of the four vegetative classes, Madrean Pine Oak and Semi-Arid Desert Grassland are the most problematic and consist of ecological conditions that have diverged from what historically existed where prescribed fire has been found effective in restoring ecological conditions.

### ITEMIZED USE OF FUNDS: (Estimated)

#### HPC Funds

\$5,000.00 Supplies (burn fuel, drip torches, PPE, tools, maintenance, etc.)  
 + \$5,000.00 Perdiem  
 + \$10,000.00 Crew Salaries  
 + \$10,000.00 Crew Overtime

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\$30,000 Total Funding for 2,000 acres in Block C of the 60,062 Project total

#### Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

\$5,300.00 Supplies

+ \$6,700.00	Per diem
+ \$30,000.00	Crew Salaries
+ \$28,000.00	Crew Overtime

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\$70,000.00	Total USFS funding towards Block C
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**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

Current cooperators are the Clifton Ranger District and the Arizona Game and Fish Department.

Potential partners include Arizona Deer Association, Mule Deer Foundation, SCI, Quail Unlimited, NWTF, Arizona Department of Agriculture (ADA), and the livestock permittees that will provide grazing allotment rest.

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?**

YES[] NO[X] N/A[]

**PROJECT MONITORING PLAN:**

The proposed monitoring plan consists of several fire/range monitoring related plots within the project area. The plots have been read to complete the NEPA for the project and will need to be re visited due to post burn re-stocking guidelines outlined in the NEPA documents. In addition, photo points have been established which will illustrate the effectiveness of treatments. Similar data and photo points were used with prior restoration projects on the Clifton Ranger District and have proved effective at monitoring project effectiveness.

**PROJECT MAINTENANCE:**

The project area will be available for re-entry if monitoring shows lack of effectiveness. However, once objectives are achieved for each project, Wildland fire may be employed as a maintenance tool to enhance and maintain the initial project investment.

**PROJECT COMPLETION REPORT TO BE FILED BY:**

The Project Completion Report will be filed by the USFS Clifton Ranger District Mesa Re-entry Project lead. At the current time this individual is Justin Thompson.

**WATER DEVELOPMENT PROJECTS** (*please use the worksheet below*):

**TREE CLEARING/REMOVAL PROJECTS** (*please use the worksheet below*):

## **ARIZONA GAME AND FISH DEPARTMENT WATER DEVELOPMENT WORKSHEET**

**PROJECT TITLE:** \_\_\_\_\_

- 1) **Is the water development listed as a priority in the most recent “Wildlife Water Development Annual Implementation Schedule?”**
- 2) **Please list the Development Branch personnel and date coordinated with for this project.**
- 3) **What is the estimated annual inches of precipitation for the area? (mark one)**  
☐2-4   ☐4-6   ☐6-8   ☐8-10   ☐10-12   ☐12-14   ☐14-16   ☐ >16
- 4) **Is there a perennial water source available to big game within four miles of this project?**  
  
YES ☐ (please complete #5 below)   NO ☐ (skip #5 below)
- 5) **For the accessible, perennial water source nearest this project:**  
Name of water source:  
Type of water source (catchment, spring, dirt tank):  
Ownership of water source:  
Distance in miles from project:
- 6) **Is the target wildlife species a result of transplant efforts?** YES ☐   NO ☐
- 7) **Please list any special land management status for the project site (i.e. Wilderness, National Park, National Monument). If private land, list landowner.**
- 8) **Please provide the following information about access to the proposed site:**  
Type of access (mark one):   ☐2x4 vehicles   ☐4x4 only   ☐foot only\*\*  
  
\*\*If foot access only: Distance in miles: \_\_\_\_\_   Approximate hiking time: \_\_\_\_\_  
  
-- Does access to this site require crossing private or tribal lands? YES ☐   NO ☐  
  
-- Please describe any restrictions to public access:
- 9) **Please list below (or on a separate sheet) the material type and dimensions of each component proposed to be added, modified, or repaired.**
- 10) **Was a site visit completed?** Yes ☐   No ☐  
If Yes, please list personnel that attended and date.

## **ARIZONA GAME AND FISH DEPARTMENT TREE CLEARING/REMOVAL WORKSHEET**

**PROJECT TITLE:** \_\_\_\_\_

- 1) What is the estimated acreage of the project?**
- 2) How are the trees going to be cleared? (agra axe, chain saw, grubbing, push, chaining):**
- 3) What is the estimated number of trees per acre?**
- 4) Describe trees to be cleared (species, estimated diameter, single stem, multi-stem):**
- 5) Describe terrain (slope, soil type, rocks)**
- 6) Please list any special land management status for the project site (e.g. Wilderness, National Park, National Monument). If private land, list landowner.**
- 7) Please provide the following information about access to the proposed site:**  
Type of access (mark one): ☐ 2x4 vehicles ☐ 4x4 only ☐ Foot only\*\*

\*\*If foot access only: Distance in miles:    Approx. hiking time:

Does access to this site require crossing private or tribal lands? YES ☐ NO ☐

Is the site relatively accessible for tree removal equipment? YES ☐ NO ☐

Please describe any restrictions to public access:

## **ARIZONA GAME AND FISH DEPARTMENT**

# **VOLUNTEER HOURLY RATES AND CLASSIFICATIONS WORKSHEET**

**PROJECT TITLE:** \_\_\_\_\_

The value of volunteer labor should be calculated at the hourly rate of an employee doing similar work, or using hourly rates from the Arizona Department of Administration's Human Resource web site, plus a standard ERE rate of 35%. [http://www.hr.az.gov/HR\\_Professional/Class\\_Comp/PDF/alphacovered.pdf](http://www.hr.az.gov/HR_Professional/Class_Comp/PDF/alphacovered.pdf)

\$0.445/mile should be the calculation used for mileage.

<b>Water Development</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Habitat Restoration and Clean Up</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Fisheries</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Nongame Branch Project</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Misc/office work</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			varies	
<b>Community Services</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$7.44	
<b>Events and Other</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Research Branch</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$14.14	
<b>Wildlife Area Hosts</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$17.44	
<b>Education Programs</b>	<b>Volunteer Hours</b>	<b>Volunteer Miles</b>	<b>Hourly Rate</b>	<b>Estimated Value</b>
			\$16.07	
<b>Totals</b>				